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29 December 1952

## MEMORANDUM TO THE FILES: Inspection and Progress Report

FROM : [REDACTED] *TRIP REF* 50X1

SUBJECT : Project 2051, Contract [REDACTED] Task 11 50X1

REF : [REDACTED] 50X1

1. On the 15th and 16th of December 1952 a trip was made to the [REDACTED] 50X1  
[REDACTED] for the purpose of checking the progress 50X1  
of the subject contract in reference to the URP-11 Thermoelectric Generator.  
Those present were:

[REDACTED] 50X1

2. This Task is just about to be closed down due to the expenditure of all the funds that have been appropriated. A written report was completed and was about to be sent out on the 16th of December, giving all the details of what has been accomplished up to the present time. This report should be in CIA channels at the present time.

3. Briefly, the study phase of this Task is not anywhere near completed. [REDACTED] pointed out that they have two very good possibilities, one being Alloy 1063, and the other being a tin-bismuth alloy. He stated that the first alloy would accomplish the purpose as far as generating the required power was concerned, but would not come within the weight specification since it would have an estimated weight of 25 pounds. The tin-bismuth gives a more efficient pile, but would have a higher internal resistance, and a 15 pound pile would not meet the specification for power output. [REDACTED] stated that they had found nothing as yet, to meet the specifications for both power output and weight at the same time. 50X1

4. Since all funds have been expended on this Task, the study phase is more or less left hanging in mid air, with fair possibilities of success if continued for another six months. There are still many problems to be solved, and in a pure research task of this kind it is pretty difficult to say if it is worthwhile continuing or not. [REDACTED] seemed to feel pretty optimistic about it, and they would much like to continue it for another six months. There is this much to be said; they do have a pile developed that closely approaches the overall efficiency of a small steam engine generator, roughly 4 to 5 percent. Dr. [REDACTED] is going to make a visit here on or about the 5th of January, and he was informed that whether this project would be continued or not, would be dependent on the Agency being convinced that it would be well worth while. 50X1

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